

Work Order ID 149301

Friday, July 22, 2016 10:15:58 AM

149301

Page 1

Item ID: 646.4002

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: AS350 Wiper Deflector

Start Date: 7/22/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/29/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: emDate: 16/07/22

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4002								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

DAS
6
9-89DAS
27
9-89

SEP 09 2016

① R

DAS
6
9-89

SEP 09 2016

DAS
27
9-89

SEP 09 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Work Order ID 149301

Friday, July 22, 2016 10:15:58 AM

149301

Page 2

Item ID: 646.4002

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: AS350 Wiper Deflector

Start Date: 7/22/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/29/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

0.00

130

Packaging

0.00

Packaging

Memo

Identify and pack for shipping as per PPP 646.4002
Location : FG102*Sold*

SEP 09 2016

140

0.00

140

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

Quality Control

SEP 09 2016

*[Signature]**ME*
16-9-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Friday, July 22, 2016 10:15:58 AM

Page 1

Work Order ID: 149301

149301

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 7/22/2016

Required Date: 7/29/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM
16.01.07 DWG REV.C DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

646.3410		Manufactured	No				Each	29.0000		1			
----------	--	--------------	----	--	--	--	------	---------	--	---	--	--	--

646 3410

LH Wiper Deflector

DAS
27
9-89

Location

Loc Qty

Loc Code

cck010

29

125083

15

97822

14

646.3411		Manufactured	No				Each	27.0000		1			
----------	--	--------------	----	--	--	--	------	---------	--	---	--	--	--

646 3411

RH Wiper Deflector

DAS
27
9-89

Location

Loc Qty

Loc Code

cck010

27

125083

10

97823

17

NAS1149F0332P		Purchased	No				Each	2,579.000		16			
---------------	--	-----------	----	--	--	--	------	-----------	--	----	--	--	--

NAS1149F0332P

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

282

m133709

282

ST262

2297

m134257

37

m134676

260

m135058

2000

SEP 09 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Friday, July 22, 2016 10:15:58 AM

Page 2

Work Order ID: 149301

149301

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 7/22/2016

Required Date: 7/29/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

Each

2,313.000

6

MS21042L3

Nut

**

PC

SEP 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK007

600

m135056

600

FP001

14

m133790

14

GA

571

m134360

112

m135135

459

OVER007

700

m135135

700

6

ST303

428

m134039

12

m134943

416

MS27039-1-19

Purchased

No

Each

221.0000

2

MS27039-1-19

Screw

**

PC

SEP 09 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

82

m134134

82

ST280

139

m135058

139

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Friday, July 22, 2016 10:15:58 AM

Page 3

Work Order ID: 149301

149301

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 7/22/2016

Required Date: 7/29/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-18

Purchased

No

Each

1,782.000

2

MS27039-1-18

Screw

**

PC 

Location

Loc Qty

Loc Code

GA

247

123522

51

124326

196

over006

1373

124326

1373

ST280

162

124326

162

Each

22.0000

2

646.3814

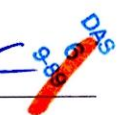
Manufactured

No

646 3814

Wiper Bracket

**

PC 

Location

Loc Qty

Loc Code

CCK106

22

125083

22

Each

15.0000

1

600.1012

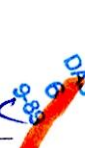
Purchased

No

600 1012

Sealant PR1425B2 (#654 sem)

**

135407 PC 

Location

Loc Qty

Loc Code

cck017

15

m134634

7

m135135

8

Each

284.0000

2

MS24694-S53

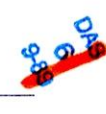
Purchased

No

MS24694-S53

SCREW

**

PC 

Location

Loc Qty

Loc Code

ST284

284

113359

284

2

Friday, July 22, 2016 10:15:58 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

 DART AEROSPACE APICAL INDUSTRIES, INC. dba DART AEROSPACE	ENGINEERING CHANGE NOTICE NO. 05304				SHEET 1 OF 1	
	DWG NO. 646.4000	REV: C	PREPARED BY J. BECKER	DATE: 02/04/16		EFFECT ON DWG ☐ INC. ☒ UNINC.
	DWG TITLE: AS350 CABLE CUTTERS KIT					
	APPROVED BY:	ENGR. <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF. NEXT ORDER	
TRANSACTION CODES (TC): A-ADD R-REVISE C-CREATE D-DELETE	REASON: REVISED F/N 12.					ECR: N/A

ACTION ITEM: 1. N/A

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM						☐ MAJOR ☒ MINOR	☐ YES ☒ NO

w/o 149301

Em 10/07/22

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AIRCAL INDUSTRIES, INC. AND IS TO BE USED FOR THE PROJECT AND QUANTITY SPECIFIED HEREON. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF AIRCAL INDUSTRIES, INC. IS PROHIBITED.

NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILED EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 7593A451.

4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5. REUSE FASTENERS FROM F/N 1.

6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05204

REV.	DESCRIPTION	DATE	BY	CHKD
1	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
2	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
3	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
4	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
5	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
6	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
7	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
8	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
9	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
10	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
11	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
12	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
13	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
14	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
15	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
16	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
17	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
18	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
19	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
20	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
21	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
22	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
23	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
24	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
25	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
26	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
27	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
28	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
29	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
30	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
31	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
32	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
33	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
34	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
35	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
36	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
37	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
38	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
39	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
40	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
41	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
42	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
43	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
44	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
45	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
46	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
47	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
48	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
49	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
50	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
51	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
52	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
53	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
54	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
55	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
56	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
57	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
58	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
59	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
60	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
61	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
62	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
63	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
64	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
65	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
66	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
67	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
68	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
69	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
70	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
71	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
72	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
73	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
74	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
75	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
76	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
77	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
78	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
79	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
80	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
81	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
82	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
83	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
84	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
85	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
86	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
87	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
88	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
89	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
90	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
91	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
92	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
93	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
94	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
95	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
96	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
97	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
98	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
99	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014
100	MCMASTER-CARR (CARR) 10/18/2014	10/18/2014	10/18/2014	10/18/2014

8

7

6

5

4

3

2

1

3000 ENTERPRISE CI
SUITE A
10000
7000-7000-5000
AS350 CABLE CUTTERS KIT

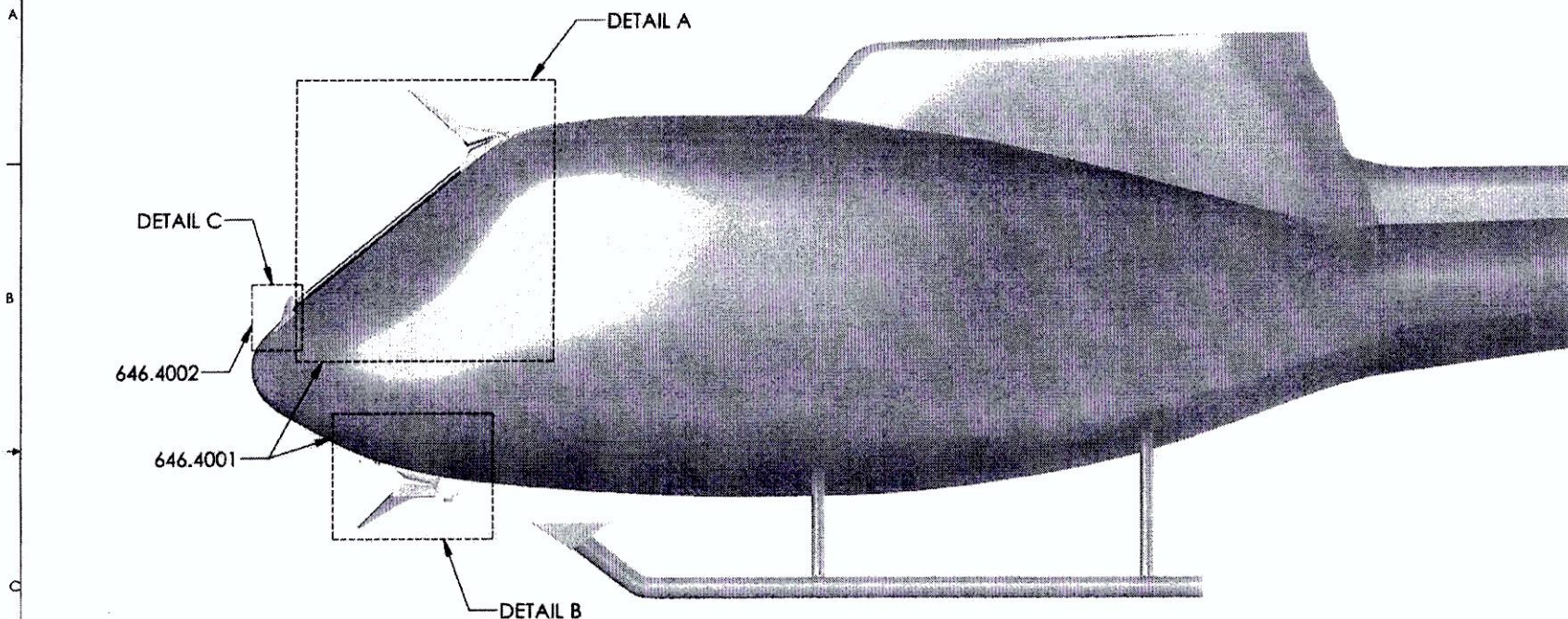
REV. 1 OF 3
SCALE NONE
DATE 10/18/2014
BY 10/18/2014
CHKD 10/18/2014
APP'D 10/18/2014

AS350 CABLE CUTTERS KIT
REV. 1 OF 3
SCALE NONE
DATE 10/18/2014
BY 10/18/2014
CHKD 10/18/2014
APP'D 10/18/2014

AS350 CABLE CUTTERS KIT
REV. 1 OF 3
SCALE NONE
DATE 10/18/2014
BY 10/18/2014
CHKD 10/18/2014
APP'D 10/18/2014

AS350 CABLE CUTTERS KIT
REV. 1 OF 3
SCALE NONE
DATE 10/18/2014
BY 10/18/2014
CHKD 10/18/2014
APP'D 10/18/2014

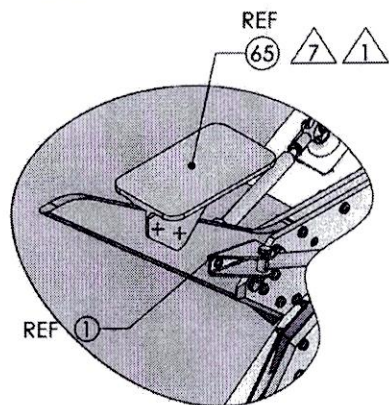
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE JWC-DA-78 08-27-08		 3030 ENTERPRISE CT. SUITE A	
DRAWN BY S. HUFF		APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAYD		VISTA, CA. 92081 (760) 724-5300	
DATE 08-27-08			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.05 ANGLES ± 5°			
SHEET 8		CAGE CODE 07M26	
DWG. NO. 646.4000		REV C	
SCALE NONE		SHEET 2 OF 5	

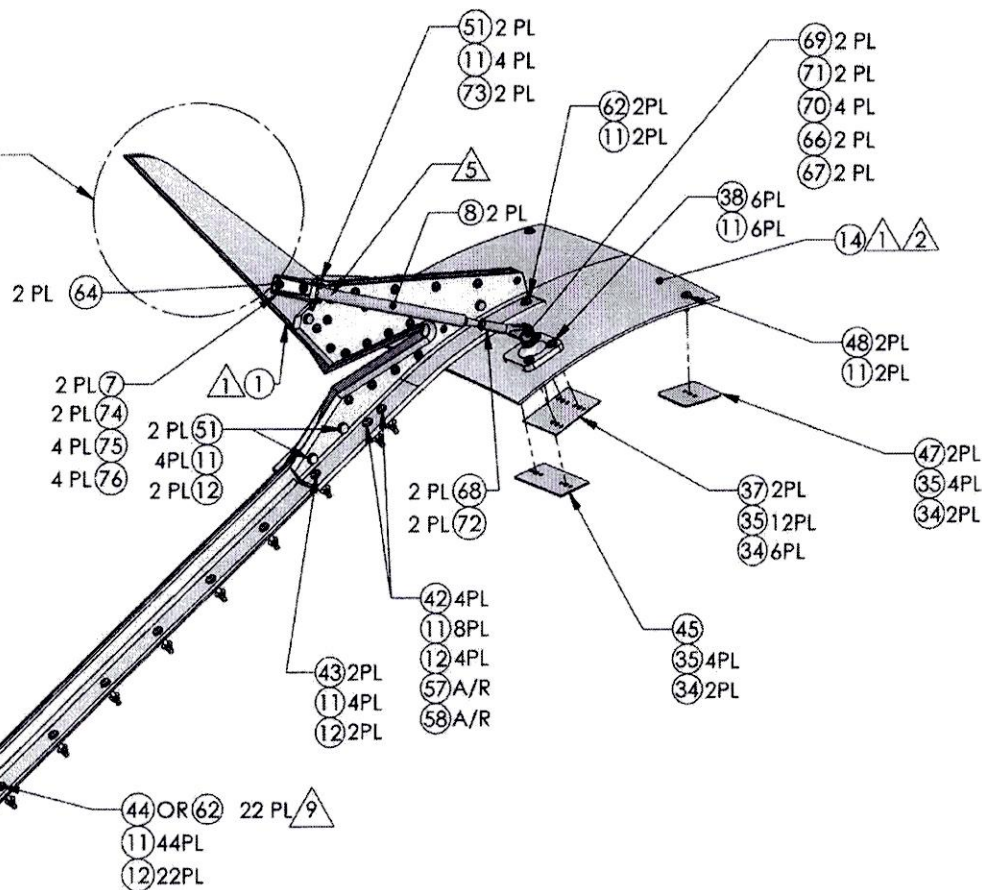
AS350 CABLE CUTTERS KIT

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AFICAL INDUSTRIES DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF AFICAL INDUSTRIES DART AEROSPACE IS PROHIBITED.

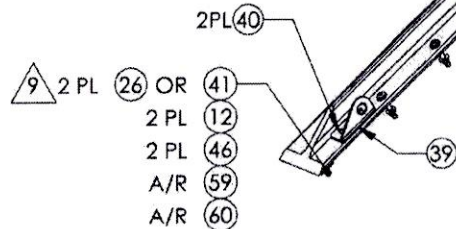


DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION

DETAIL D

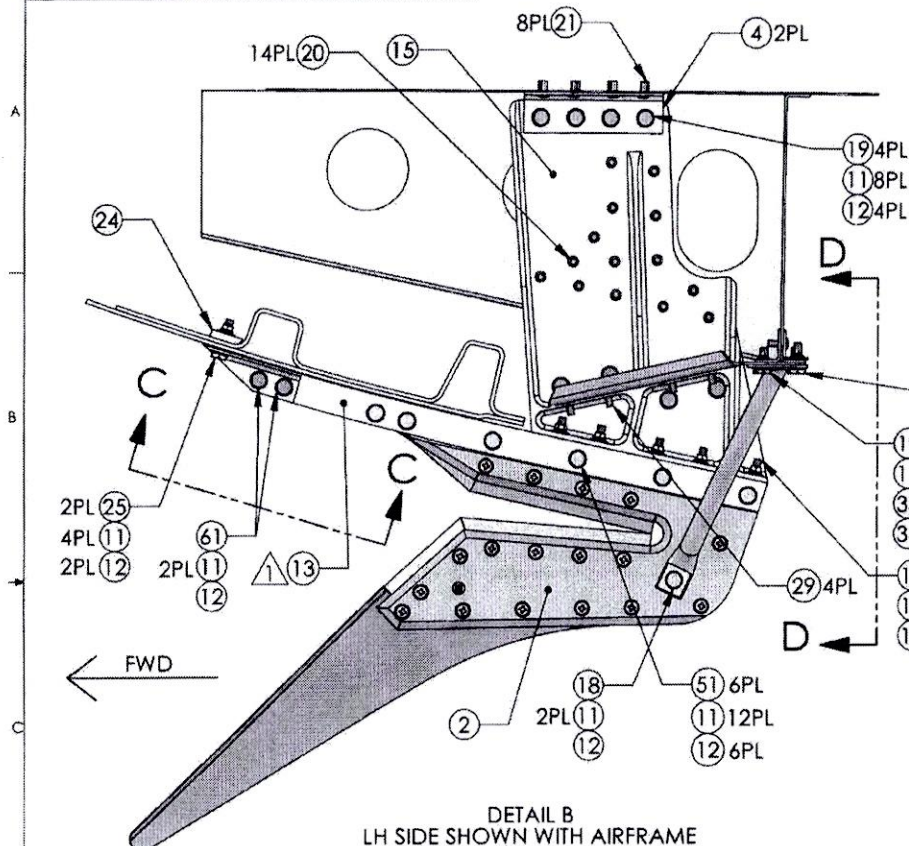


DETAIL A
SHOWN ISOMETRICALLY

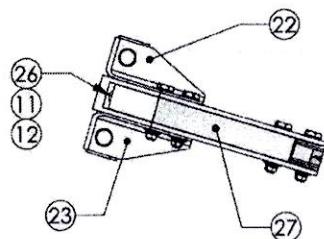


ORIGINAL DATE 08-27-08		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
DRAWN BY S. HUB P. BRAVO		DART AEROSPACE	
DRAWING APPROVAL P. BRAVO 08-27-08		AFICAL INDUSTRIES INC. 600 DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 ANGLES ±.5°	SHEET B	CAGE CODE 07M76	REV C
	SCALE NONE	DWG. NO. 646.4000	SHEET 3 OF 5

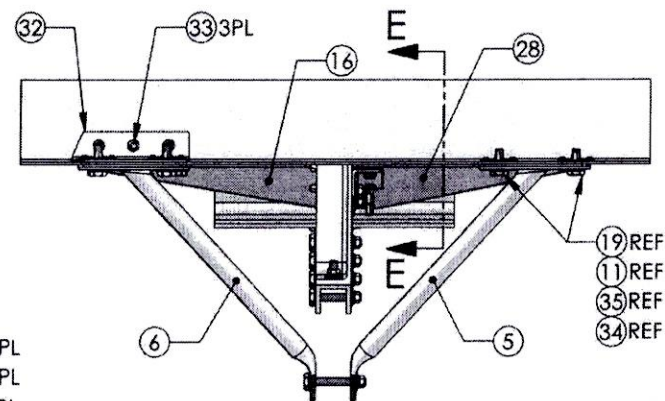
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



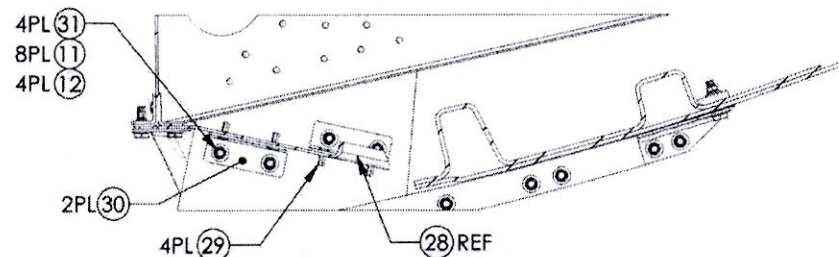
DETAIL B
LH SIDE SHOWN WITH AIRFRAME



SECTION C-C



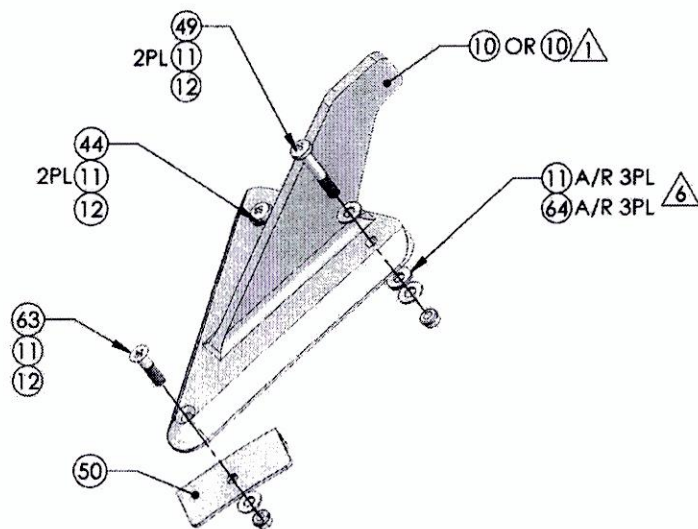
SECTION D-D
CUTTER HIDDEN FOR CLARITY



SECTION E-E

ORIGINAL DATE REV. DATE 03-27-08		DART 3030 ENTERPRISE CT., SUITE A	
DRAWN BY: J. HIGGINS		VISTA, CA 92081	
CHECKED BY: P. BRAY		(760) 724-5300	
DRAWING APPROVAL: P. BRAY		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DATE: 08-20-08		AS350 CABLE CUTTERS KIT	
CONTACT: 100		SHEET: 6	REV: C
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 2 PLACE DECIMALS ± 0.10 3 PLACE DECIMALS ± 0.005 ANGLES ± 0.5°		CAGE CODE: 07M76	DWG. NO.: 646.4000
		SCALE: NONE	SHEET: 4 OF 5

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE 08/21/08		 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300 APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWN BY S. HUI			
DRAWING APPROVAL P. BRAVO		AS350 CABLE CUTTERS KIT 8 07M26 646.4000 C SCALE NONE SHEET 5 OF 5	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.05 ANGLES ±.5°			

UNINCORPORATED ECN(S)

NOTES:

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AECAL INDUSTRIES. NO PART OR WHOLE THEREOF MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN PERMISSION OF AECAL INDUSTRIES. NO PART OR WHOLE THEREOF MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN PERMISSION OF AECAL INDUSTRIES. NO PART OR WHOLE THEREOF MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN PERMISSION OF AECAL INDUSTRIES.

8 7 2 1 9 1

Page 1

[illegible]